

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

9/38/233

Applicant's or agent's file reference P 15 109 PC-yb	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH99/00391	International filing date (day/month/year) 24 August 1999 (24.08.99)	Priority date (day/month/year) 24 August 1999 (24.08.1999)
International Patent Classification (IPC) or national classification and IPC B01D 35/00		
Applicant LEHMANN, Martin		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>9</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>4</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application

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Date of submission of the demand 10 February 2000 (10.02.00)	Date of completion of this report 29 November 2001 (29.11.2001)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

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International application No.

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I. Basis of the report

1. With regard to the **elements** of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-10, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages 1, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages 2-17, filed with the letter of 05 December 2000 (05.12.2000)
- ☒ the drawings:
 pages 1/1, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 1-17

because:

- ☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-17
are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for said claims Nos. _____.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

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I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

CONTINUATION OF BOX I.5

The terms "to observe" and "to measure" designate entirely different actions, and therefore a combination of the two terms, as introduced in Claim 1 by the letter of 5 December 2000, makes the meaning of the claim unclear. Moreover, the term "to measure" is not disclosed in the original application, and precisely this fact leads in the present case to a lack of clarity (see **Box VIII, 4**).

The Claim 1 filed with the letter of 5 December 2002 thus goes beyond the original disclosure in the international application as filed, thereby contravening PCT Article 34(2)(b). The examination is therefore based on the original Claim 1.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: **BOX III**

The present set of claims has numerous unclear points, as explained in Box VIII. For this reason, a complete examination for novelty and inventive step cannot at present be carried out.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The expression "method for producing" in Claim 1 is misleading (PCT Article 6) because a testing method rather than a production method is actually claimed. This is made even more clear by the fact that the apparatus defined in Claim 7 is designated a test system and not a production system. The method described concerns the testing of an already existing and known filter, which is not rendered novel by the described testing process. Claim 1 does not define production steps but rather only a testing process which is independent of the production process and does not modify the product itself.

2. The preamble of the method Claim 1 describes only structural features of a filter; however, the characterising part starts with the words and then.

This is unclear (PCT Article 6) because no preceding steps have been described and no method steps can follow an apparatus. The use of the passive voice, "is encapsulated", in Claim 1 does not clearly define a method step; specific filter assembly steps are missing. This also makes it clear that the testing process is entirely independent of the actual production process.

3. The expression, "pressure difference above the filter housing wall...", is unclear (PCT Article 6). This definition designates a location but a pressure difference cannot be located above an object.

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Presumably, the expression should read "pressure difference through the filter housing wall...".

This definition likewise fails to indicate where different pressures are applied. Maybe only the filter input and filter output are meant, but maybe the definition could also mean that the filter output is closed and the housing is tested for its pressure-retaining capacity. In this respect, it should also be noted that no filter output is mentioned in the entire application. It is therefore unclear what happens with the filter output during the process. No indication is given to a person skilled in the art of whether this output should be sealed, of whether leaks should also be checked here, or whether pressure is also applied here (PCT Article 5).

4. The expressions "observing" or "watch" in Claim 1 are unclear (PCT Article 6). They imply rather a visual test. However, it cannot be understood how a leak can be "seen" when the test chamber is closed, specially when the leak occurs in the filter housing (see also point 5). The statement that a "pressure behaviour" is to be observed is, in addition, extremely vague and unclear and does not indicate how this is to be achieved (PCT Articles 5 and 6).
5. The expression "observing the pressure behaviour in the filter housing for leaks or the absence of leaks in the filter housing" (Claim 1) is linguistically and technically incomprehensible (PCT Article 6). The description also fails to indicate how this is

VIII. Certain observations on the international application

to be achieved or what devices would be required therefor.

6. The expression "and from observing the screwing movement" (Claim 1) is unclear in the context of the entire claim. Moreover, it is incomprehensible how dimensional specifications of the housing can be deduced from the screwing movement of the threaded head (PCT Article 6). The description only indicates that the thread in the base part of the filter can be inspected. As likewise indicated by the description, it is not the screwing movement of the threaded head that is detected therefor, but rather the axial displacement of the transmission armature (13), which is associated with the spring forces applied.
7. It is not possible to understand from the present wording of Claim 1 to what the definition "automatic" is supposed to apply (PCT Article 6). It is unclear whether only the screwing of the threaded head is to be automated or whether this extends to all subsequent actions. This appears doubtful, in particular with regard to an "automatic" observation. The claimed scope of protection therefore cannot be unambiguously recognised from Claim 1.
8. In a clear set of claims, each feature in the method claim should correspond to a respective feature in the device claim. However, this is not the case of the present set of claims. Independent Claim 7, which does not refer back to Claim 1, describes a

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plate for a filter cartridge, but it is not clear where and how the filter cartridge is positioned on or secured to the plate. The claim does not indicate that the threaded head must be arranged in such a way that it can be automatically screwed into the base part of the filter (PCT Article 6).

Furthermore, Claim 1 does not indicate any means for building up or measuring a pressure difference. (The "observation" of the pressure behaviour thus appears to be really a visual process). Nor are any means indicated for deducing whether the filter housing meets dimensional specifications.

The apparatus described in Claim 7 is thus obviously not suitable for implementing the method as per Claim 1.

The expression "leakage test chamber" describes only an object. It does not necessarily include the definition of detection elements and does not specify where and how such elements should be connected in order to detect a pressure difference through a wall of the filter to be tested. Although the newly submitted definition, "screwing measuring system operationally connected to the threaded head", appears to be supported by the original application, the special function whereby the dimensional specifications of the threaded connection of the filter housing or of the filter housing itself are deduced from the screwing movement cannot be derived from the original application.

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9. Since said features of the two independent claims strongly differ, for the time being it is unclear what features are essential for the subject matter of the present application, that is in what the invention actually consists.
10. As indicated by the description, various values can be detected by the device described therein. It is therefore clear that the device claim lacks essential features (PCT Article 6). At least the definition of Claim 7 includes configurations which do not solve the problem and/or which do not achieve the advantages described to support an inventive step. The subject matter of Claim 7 therefore cannot involve an inventive step *a priori* (i.e. before the citations are considered). The requirements of PCT Article 33(3) are therefore not met.

The examiner continues to assume that the independent claims are only lacking essential features and therefore do not meet the requirements of PCT Article 6.

However, should the applicant have intended to claim a device which is independent of the method claim and unsuitable for carrying out the method, the application would formally lack unity. In this case, the present set of claims would not meet the requirements of PCT Rule 13.1.

11. The device Claim 7 does not mention the "functional features" in Claim 1, that is the observation of leaks and the housing specifications. Even if

VIII. Certain observations on the international application

"means" for carrying out these observations were included, this would represent only a definition of the problem in question but not a solution to said problem. The description extensively explains at least the inspection of the thread in the filters and how it is achieved by a particular mechanical structure.

Pursuant to PCT Article 6, the solution to the problem in question must be clearly and unambiguously indicated in the claims. Although this needs not lead to a restriction to the embodiments, the functional principle must be recognisable in terms of clear technical features. The mere statement that it is possible to deduce whether dimensional specifications are met from the observation of the screwing movement of the threaded head only specifies the problem in question, but not its solution. The resultant restrictions are not clear to a person skilled in the art (PCT Article 6).

12. The remaining claims are dependent on Claims 1 or 7 and are therefore also unclear because they contain all the features of the independent claims.
13. [German text only] In Claim 2, the term "Anschluss 1" should actually read "Anspruch 1" (Claim 1).

Observation: Insofar as Claim 1 is comprehensible, it describes at present only standard quality control steps for filters. The testing for tightness is general prior art and the visual inspection of

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the housing or of the thread appears to be a standard measure.

The subject matter of Claim 1 in its present form appears to differ only in that a threaded head is automatically screwed. However, this alone cannot substantiate an inventive step. Automated processes, in particular for the inspection of mass-produced articles, are general prior art. The mere automated screwing of a threaded head represents a simple process and would be regarded by a person skilled in the art as a customary measure for solving the problem in question, and its implementation in a structure could be achieved by a person skilled in the art without an inventive input.